



**On the Paraguayan specimens of *Nothura darwinii* (Aves: Tinamidae) and *Glaucis hirsutus* (Aves: Trochilidae) in the collection of the Natural History Museum of Geneva (Switzerland), with a review of South Brazilian reports of the latter**

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**On the Paraguayan specimens of *Nothura darwinii* (Aves: Tinamidae) and *Glaucis hirsutus* (Aves: Trochilidae) in the collection of the Natural History Museum of Geneva (Switzerland), with a review of South Brazilian reports of the latter.** - The identity of specimens in the MHNG identified as possibly the first records of *Nothura darwinii* and *Glaucis hirsutus* from Paraguay are clarified. Specimens of *N. darwinii* are referable to *N. maculosa*. The specimen of *G. hirsutus* is correctly identified but lacks basic collection data and hence is considered hypothetical pending further evidence. The status of *G. hirsutus* in southern Brazil is discussed.

**Keywords:** Brazil - Mato Grosso do Sul - Paraguay - Paraná - Rio Grande do Sul - Santa Catarina - Tinamidae - Trochilidae.

## INTRODUCTION

Collections were made in Paraguay from 1978 to 1991 by staff from the Museum d'Histoire Naturelle de la Ville de Genève (Natural History Museum of Geneva): a total of 1437 specimens of birds were collected. This collection includes two specimens identified as *Nothura darwinii* (Tinamidae) and a single specimen of *Glaucis hirsutus* (Trochilidae). These species were cited as "hypothetical" by Clay & del Castillo (2004) who were unable to trace the specimens. During July 2007 the specimens were located in the Department of Ornithology and Mammalogy at the Geneva Natural History Museum and their identities and status were clarified.

## RESULTS

### *Nothura darwinii* Darwin's Nothura

Figs 1-2

Two specimens from Paraguay labelled as *Nothura darwinii* are present in the Geneva collection: MHNG 1720.053 (female, 5 km east of Estancia Santa Sofia, Departamento Concepción, 30 September 1989, field number PY 7083, collected by



FIG. 1

*Nothura maculosa* specimens, previously labeled as *Nothura darwinii*: MHNG 1720.054 (above), MHNG 1720.053 (below).



FIG. 2

Details of the primaries for MHNG 1720.054 (above) and MHNG 1720.053 (below). The barring present on both webs of the underside of the primaries is characteristic of *Nothura maculosa*.

Claude Vaucher and Alain de Chambrier) and MHNG 1720.054 (unsexed, 20 km south of Puente Zinho, Departamento Concepción, 6 November 1987, no field number and unknown collector). Both these specimens can be positively identified as Spotted Nothura *Nothura maculosa* on account of the following characteristics: i) barring present on both webs of the underside of the outer primaries, as seen in Fig. 2 (confined to the outer web in *darwinii*) (Conover, 1950); ii) tarsal measurements of 357 mm and 350 mm (*darwinii* being in the region 310-330 mm; Bump & Bump, 1969). Furthermore one of the specimens labelled as *darwinii* (MHNG 1720.053) was referred to as *maculosa* in field notes made by its collectors.

*Nothura darwinii* was included without comment in the Paraguayan avifauna by Contreras *et al.* (1990) presumably on the basis of these specimens, and later listed by Hayes (1995) as a species for which “no details have been published”. Amarilla &

Barreto (1999) list an undocumented sight record by B. Young from near Cerro León, Departamento Alto Paraguay in 1998 but this seems almost certain to be in error, that area being largely forested, subhumid as opposed to the arid habitats this species occupies in the rest of its range and regularly birded without any prior or additional records.

*Nothura darwinii* occurs in Peru, Bolivia and Argentina, the latter two sharing land borders with Paraguay (Cabot, 1992; Schulenberg *et al.*, 2007). In Argentina *N. darwinii* is distributed on the eastern slope of the Andes from Provincias Jujuy and Salta south through eastern La Pampa and southwestern Buenos Aires to Rio Negro and northern Chubut (Bump & Bump, 1969; Cabot, 1992; Davies, 2002). In Bolivia its distribution again is associated largely with uplands and foothills in La Paz, Cochabamba, Santa Cruz, Chuquisaca, Tarija and Oruro Departamentos, where it occurs locally to 4300 m (Hennessy *et al.*, 2003). In fact the closest Paraguayan territory comes to the known distribution of *N. darwinii* is extreme southwestern Boquerón department, and adjacent areas of Argentina and Bolivia in this area are occupied only by *N. maculosa*. Its presence in Paraguay must therefore be considered unlikely.

### ***Glaucis hirsutus* Rufous-breasted Hermit**

Fig. 3

Specimen MHNG 1723.041 is a female *Glaucis hirsutus* which exhibits an unusually strong coppery colouration dorsally (Fig. 3). According to the specimen label it was “collected in Paraguay some time between 1983 and 1989” [with no indication of collector]. It does not have a field number and it was not included in the field reports available in the archives of the Museum. Unable to trace the specimen, Clay & del Castillo (2004) list the species without comment in a list of “Possible Hypothetical” species. There are no other records for Paraguay and the species has never been reported from Argentina (Chebez, 1996; Mazar Barnett & Pearman, 2001).

*Glaucis hirsutus* is widely distributed in tropical cis-Andean regions of the Neotropics from Panama to west-central (Mato Grosso) and south-east (São Paulo) Brazil (Grantsau, 1988). Although Meyer de Schauensee (1982) listed the distribution as “BRAZIL south to Rio Grande do Sul” [perhaps on the basis of Ruschi (1979) which is cited in the bibliography] there are apparently no unambiguously documented records of the species anywhere in southern Brazil. The following summarises what has been published about the species in this region.

*Mato Grosso do Sul*: It was not reported during a series of inventories in south-western Mato Grosso do Sul immediately adjacent to the Paraguayan border (Straube *et al.*, 2006a, b; Pivatto *et al.*, 2006) and although it is mapped for the extreme north of the state in the major field guide to the region (Gwynne *et al.*, 2010), there are no documented records for the entire state (Nunes *et al.*, submitted).

*Paraná*: Scherer-Neto *et al.* (2011) list the species as undocumented in Paraná on the basis of its inclusion in an unpublished thesis by Bornschein (2001).

*Santa Catarina*: Rosário (1996) maps the species only for coastal northeastern Santa Catarina based on a single sight record at “Reserva Florestal Hoffmann, Brusque Municipality” on 28 May 1979. In fact the only alleged specimen record for Santa Catarina state is MBML-573, supposedly collected by A. Ruschi at Joinville on



FIG 3  
*Glaucis hirsutus* female, MHNG 1723.041.

18 November 1960. However if the collection data is to be believed the same collector apparently collected several other species of hummingbirds at Joinville on the same date, as well as another specimen of *G. hirsutus* several thousands of kilometers away at “Usina Rio Branco”, Sergipe State. Consequently the locality is suspect and the species is not considered documented in the state (Vielliard, 1994).

*Rio Grande do Sul*: Bencke (2001) cites a Ruschi specimen in the Museu de Biologia Prof. Mello Leitão (MBML 572) supposedly collected on 31 October 1946 at “Fazenda Retiro, Nazareth, Porto Alegre”, but notes several problems with the data. All other specimens of hummingbirds from Rio Grande do Sul in the museum collection were collected by Ruschi during his visit to the state in late August and early September 1956. Although Ruschi (1951) claims to “update the distribution of various species of hummingbird not previously recorded in certain Brazilian states”, he omits mention of this species in the southern Brazilian states, including Rio Grande do Sul. Later however Ruschi (1965) does include the species in the state avifauna along with six other species of hummingbird for which there is apparently no documentation and for which there have been no further records. Bencke (2001) hesitantly considered the species a vagrant to the state on the basis of the MBML specimen, but given the uncertainty surrounding the provenance of the specimens and the revelation by Fontana (2005) that the locality was untraceable he later discounted it completely (Bencke *et al.*, 2010). Meyer de Schaunensee (1970, 1982) included the state in the range of the species, but this was rejected by Belton (1978, 1984, 1994) because of a lack of evidence.

Though correctly identified, the vagaries of the specimen label regarding both the location and date of collection of the Paraguayan specimen MHNG 1723.041 are cause for similar doubt. Given the distance from, and uncertainty surrounding records in neighbouring states in Brazil, it would seem preferable to maintain this species as hypothetical in Paraguay pending further records.

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